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# **The Plains CO<sub>2</sub> Reduction (PCOR) Partnership**

## **Phase II Activities**

**May 9, 2007**



# PCOR Partnership

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## Phase II Goals

- Increase public understanding of CO<sub>2</sub> sequestration
- Perform field validation tests that develop:
  - Monitoring, mitigation, and verification (MMV) protocols.
  - Regional sequestration strategies.
  - Best separation/source matches.
  - Regulatory and permitting strategies.
  - Environmental benefits and risks.
  - Information needed to monetize C credits.
- Continued regional characterization.
- Creating a vision for practical environmentally sound carbon management strategies.

The PCOR Partnership involves more than 60 partners who represent public agencies, utilities, oil and gas companies, engineering firms, associations and nonprofit organizations, and universities.



# PCOR Partnership Phase II – Regional Field Verification Activities



# Williston Basin Oil Field



- CO<sub>2</sub> in a deep oil reservoir – CO<sub>2</sub> will be injected into an oil-bearing zone.
- We are currently finalizing plans with Hess Corporation for this summer's field-based activities.
- Sharing Eclipse models and expertise.

# Zama Acid Gas EOR Project

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- One of four Alberta demonstration projects to receive royalty credits for injecting CO<sub>2</sub> for enhanced oil recovery (EOR).
- Approach combines acid gas disposal and CO<sub>2</sub> EOR.
- Potential to expand to over 600 additional pinnacles.

# Lignite Field Validation Test

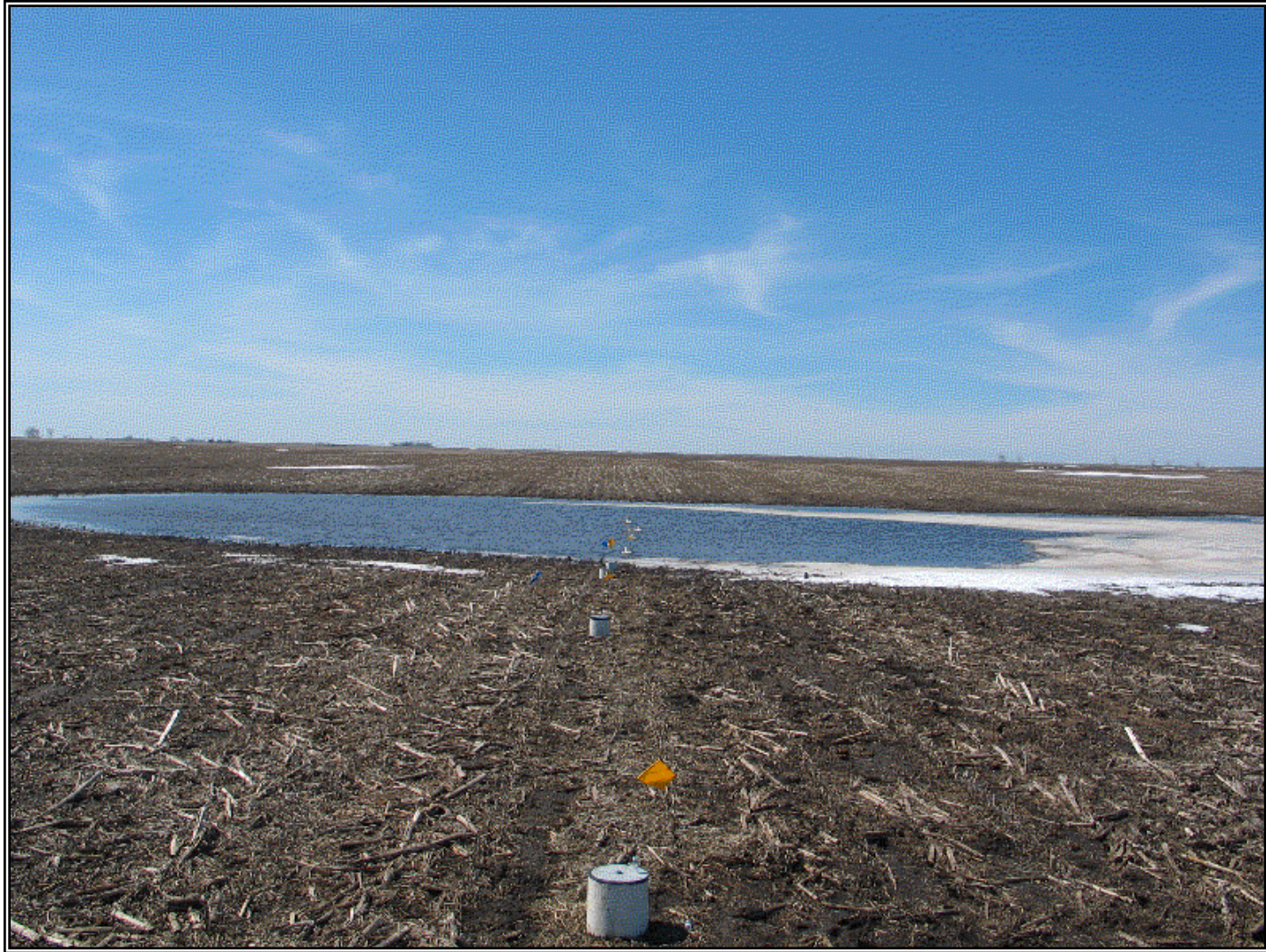
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- Determine the accuracy with which CO<sub>2</sub> storage capacity in lignite coal can be predicted.
- Develop data regarding the potential of CBM to be produced from lignite coal as a by-product of CO<sub>2</sub> injection.
- Demonstrate cost-effective MMV technologies and protocols for:
  - CO<sub>2</sub> sequestration.
  - Enhanced coalbed methane (CBM) in a lignite coal seam.



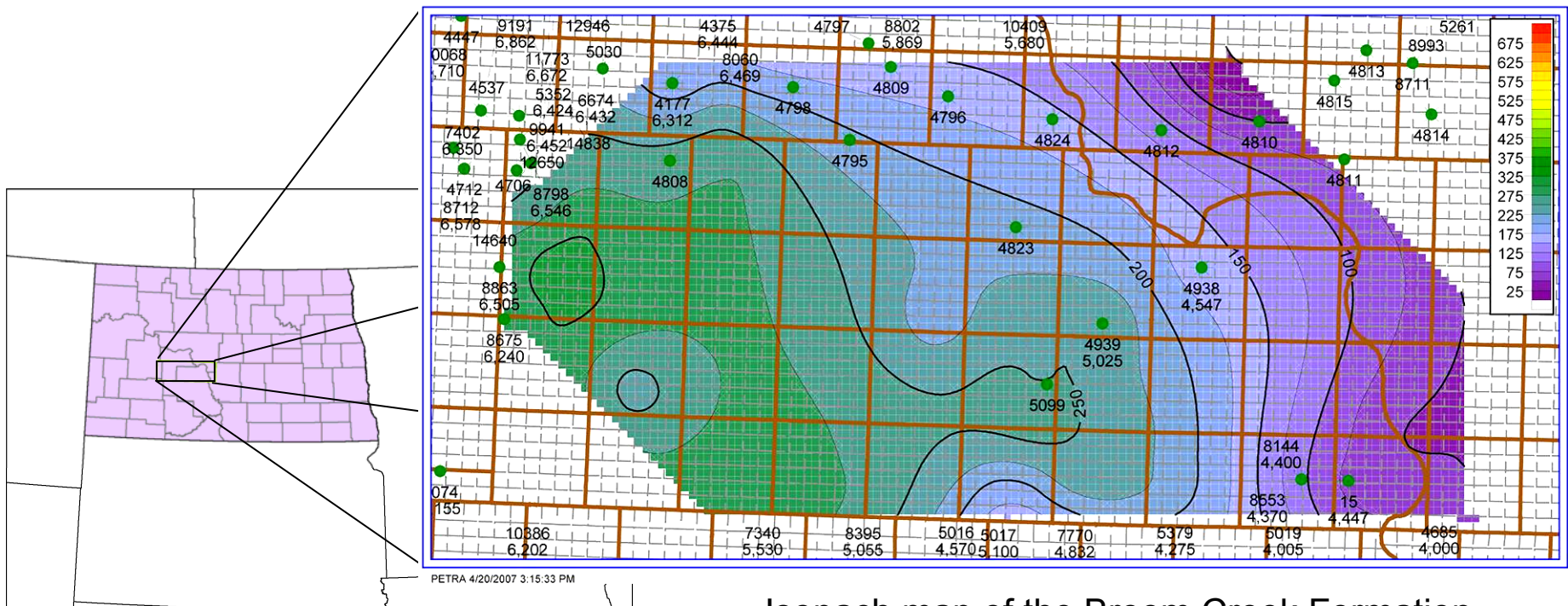
# PCOR Partnership Wetland Field Validation Test

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# Focused Characterization Efforts

- More detailed evaluation of the CO<sub>2</sub> sequestration potential of saline formations in central North Dakota



Isopach map of the Broom Creek Formation

# Task 7 – Research Safety, Regulatory, and Permitting Issues

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- Interstate Oil and Gas Compact Commission (IOGCC)
  - Carbon Capture and Geological Storage Regulatory Task Force
    - Developing model regulations dealing with site licensing, well operation, well/site closure, and long-term storage.
      - Legal Subgroup
      - Technical Subgroups
        - » Site Licensing and Well Operations
        - » Well/Site Closure and Long-Term Storage



# PCOR Partnership Deliverables

**Deliverables in Phases I and II have included the following:**

- Regional atlas
- Road map documents
- Fact sheets
- Topical reports
- Design packages
- Sampling protocols
- Outreach action plans
- Progress reports
- Site health and safety plans
- Video Documentaries
- Public and Private Web sites
- Regional characterization gap assessment
- National Environmental Policy Act (NEPA) compliance forms
- Regional permitting implementation outlines
- Project management plans
- Regulatory permitting action plans





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